

REMARKS

Claims 1-9 and 12-20 are currently pending. Of those claims, claims 1, 5 and 16 are independent.

By the Amendment herewith, Applicant has clarified the claims to recite that the terminal is a “wireless” terminal as supported throughout the specification at, for example, page 8, lines 32-33. No new matter is introduced into the application as a result of the foregoing amendments.

In the outstanding non-final Office Action, claims 5 and 16-17 are rejected under 35 USC Section 102(e) as being anticipated by Turner et al. (US Patent 7,072,296, hereinafter “Turner”). Lastly, claims 1-4, 6-9, 12-15 and 18-20 are rejected under 35 USC Section 103(a) as being unpatentable over Turner in view of Bladsjo et al. (US Patent 6,907,030, hereinafter “Bladsjo”).

The above rejections are respectfully disagreed with, and are traversed below.

Independent claims 1, 5 and 16 recite, respectively:

1. A method comprising:

if a wireless terminal of a packet-switched cellular network estimates that a combined bit count of a voice sample and a header field of a voice packet exceeds an available transmission capacity of a transmission channel allocated to the terminal, then the terminal reduces a number of bits in the voice sample or steals at least one whole voice block; and

the wireless terminal uses the reduced voice sample bits for transmitting the header field data of the same packet, wherein the voice sample and the header field are transmitted in real time in the transmission channel.

5. A wireless terminal comprising:

a means for reducing a number of bits in a voice sample included in a packet to be transmitted and

a means for using said reduced bits of the voice sample for transmitting header field data of the same packet in a digital packet-switched cellular network.

16. A wireless terminal comprising:

a controller for processing an algorithm for reducing a number of bits in a voice sample included in a packet to be transmitted and using the reduced bits of the voice sample for transmitting header field data in the packet, the terminal configured to transmit the packet in a digital packet-switched cellular network.

Claims 2-4, 6-9, 12-15 and 17-20 depend from an independent claim and recite further advantageous features.

Thus, it can be seen that embodiments of the claimed invention relates to a wireless terminal in a packet-switched cellular network. For example, the wireless terminal can reduce bits belonging to a speech sample to be transmitted and use the saved bits in a header field of the speech packet if there is a lack of transmission capacity. The header field of a speech packet can thus be in a decisive role when the speech packet is directed to a right receiving terminal in the packet-switched network.

The Examiner appears to consider Turner as the closest art. However, Applicant respectfully points out that a significant difference between Turner and embodiments of Applicant's claimed invention is that Turner is directed to optimized leased lines in the backbone network between a mobile switching office (MSO) and cell sites. The optimization is accomplished by using two backhaul gateways (references 30 and 40 in Figs. 1 and 3). These backhaul gateways are located between base stations (BTS reference 15 in Fig. 1) and a base station controller (BSC reference 18 in Fig. 1). The connection between the backhaul gateways are accomplished by leased lines (column 3, lines 24-379).

It is noteworthy that in Turner a connection between a base station and a mobile terminal is managed by using standard transmission protocols (column 14, lines 6-15). Any possible problems in the air interface are not addressed.

However, the amended claims of the subject application present a solution as to how, for example, capacity problems, which may exist in the air interface between the mobile terminal and the base station, can be handled by the mobile terminal.

Therefore, Applicant respectfully submits that Turner does not anticipate claims 5, 16 and 17 as contended by the Examiner because, for example, Turner does not disclose (or even suggest) any

divergent protocols from the prior art to be used in the air interface between the mobile terminal and the base station.

In paragraph 5, page 3 of the Office Action, the Examiner rejects the remaining claims as being obvious over Turner in view of Bladsjo. Applicant respectfully disagrees with this rejection. As noted above, the starting point of the argumentation of the Examiner is not valid. Turner depicts a solution as to how capacity problems in the backbone network can be handled between two gateways that are connected by leased lines. Turner is fully silent about the air interface between the mobile terminal and the base station.

Bladsjo discloses a solution as to how a receiver can handle multiplexed information having higher and lower priorities. Low priority data can be transmitted in silent periods of a high priority data (i.e. real-time voice data). In the system of Bladsjo, the receiver can be in three different states: speech, no speech or speech possible. Headers of received frames contain information as to what state the particular receiver should be in for correctly decoding the received frame.

Although Bladsjo may disclose a wireless packet-switched network, this reference does not disclose or suggest how the afore-referenced problem set forth in Applicant's specification and addressed by the subject claims, could be corrected. Thus, the above-mentioned deficiency of Turner could not be corrected in a way which would lead a person of ordinary skill in the art to the claimed invention. Nor is there any reason to combine and modify the teachings of the cited references in an attempt to arrive at Applicant's claims. Thus, the Examiner's obviousness rejection also should be reconsidered and withdrawn.

Moreover, Applicant's claims are amended to refer to a "wireless" terminal, which further distinguishes the subject claims from the teachings of the cited references. The cited references do not disclose or suggest all of the features set forth in Applicant's independent claims 1, 5 and 16.

Accordingly, for at least the foregoing reasons, Applicant's independent claims 1, 5 and 16 are believed to be patentable. Similarly, the remaining dependent claims also are believed to be patentable at least in view of their dependency from an allowable independent claim.

The Examiner also is kindly requested to acknowledge receipt of the certified copy of the Finnish priority document, which was submitted to the USPTO on January 20, 2004 along with the filing of the subject application.

All issues having been addressed, the subject application is believed to be in condition for immediate allowance. Accordingly, the Patent Office is respectfully requested to reconsider and remove the outstanding rejections and to allow all of the pending claims 1-9 and 12-20. An early notification of the allowability of claims 1-9 and 12-20 is earnestly solicited.

Should the Examiner have any questions, a call to the undersigned attorney would be appreciated.

Respectfully submitted:

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June 16, 2009

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